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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,318	03/23/2004	Yong-jin Ahn	1293.1278C4	1757
49455	7590	08/10/2005	EXAMINER	
STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005			CHOW, LIXI	
			ART UNIT	PAPER NUMBER
			2652	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,318

Applicant(s)

AHN ET AL.

Examiner

Lixi Chow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/18/04, 3/1/05, 7/21/05, 7/26/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2 and 4 of copending Application No. 10/806107. Although the conflicting claims are not identical, they are not patentably distinct from each other because both set of claims contain recording of recording pattern having multi-pulse and recording of erase patten having multi-pulse. Even though claim 1 and/or claim 4 in Application No. 10/806107 does not recite recording pattern and an erase pattern being alternatively and sequentially formed on the optical recording medium in response to input data having a first level and second level; however, claim 1 of Application No. 10/806107 does recite the forming of recording mark or space on the optical recording medium in response to the recording waveform. Hence, mark and space are inherently formed alternatively and sequentially on the optical recording medium in response to the different level of input data. Also, claims in Application No. 10/806107 does not recite the exact phrase of "cooling pulse as a portion of the first multi-pulse and another portion of the second multi-pulse"; nevertheless, Application No. 10/806107 does recite "the cooling pulse concatenating the

recording and erase pattern”, wherein the recording pattern corresponds to the first multi-pulse and erase pattern corresponds to the second multi-pulse. Furthermore, the recording pattern to record mark would have different amplitude in comparison to the amplitude corresponds to the erase pattern, so mark or space can be form on the optical recording medium.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Ichihara (US 6,396,792).

Referring to claim 1:

Ichihara discloses an apparatus (Fig. 5) for forming a recording pattern and an erase pattern alternatively and sequentially on an optical recording medium in response to input data having a first level and a second level (see Col. 2, lines 53-65), respectively, in an optical recording apparatus, comprising:

a recording waveform generating unit generating a recording waveform which includes a first multi-pulse having a plurality of first pulses to form the recording pattern in response to the first level of the input data and a second multi-pulse having a plurality of second pulse to form the erase pattern in response to the second level of the input data (see Figs. 1A and Fig. 1B; Fig.

1A shows the NRZI signal waveform corresponding to the length of the recording mark and space; and Fig. 1B shows the waveform of recording pulses).

Referring to claim 2:

Ichihara discloses the apparatus as in claim 1, wherein the recording waveform generating unit generates a cooling pulse as a portion of the first multi-pulse and another portion of the second multi-pulse (see Fig. 1B and Col. 5, lines 54-61; the pulse between erase pulse and record pulse corresponds to the cooling pulse).

Referring to claim 3:

Ichihara discloses the apparatus as in claim 1, wherein the first pulse of the first multi-pulse each having a first duty cycle and a first amplitude, and the second pulse of the second multi-pulse each having a second duty cycle different from the first duty cycle and a second amplitude different from the first amplitude (see Fig. 1B and Col. 5, line 40 to Col. 6, line 44).

Referring to claim 4:

Ichihara discloses the apparatus as in claim 1, further comprising:

a pickup unit forming a mark corresponding to the recording pattern on the optical disc in response to the first pulse of the first multi-pulse and erasing another mark to form a space corresponding to the erase pattern on the optical disc in response to the second pulse of the second multi-pulse (see Fig. 5, element 13 and Fig. 1B; the pulse having smaller amplitude corresponds to erase pattern and pulse having larger amplitude corresponds to record pattern).

Referring to claim 5:

Ichihara discloses an apparatus (Fig. 5) for forming a recording pattern and an erase pattern (Fig. 1B) alternatively and sequentially on an information storage medium in response to

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input data having a first level and a second level (see Col. 2, lines 53-65), respectively, in a recording apparatus, comprising:

a recording waveform generating unit generating a recording waveform which comprises multi-pulse corresponding to the second level of the input data, and a cooling pulse concatenating the recording and erase patterns (see Figs. 1A and Fig. 1B; Fig. 1A shows the NRZI signal waveform corresponding to the length of the recording mark and space; and Fig. 1B shows the waveform of recording pulses; the pulse between erase pulse and record pulse corresponds to the cooling pulse).

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dekker is cited, because Dekker shows an optical recording medium capable of recording multi pulse erase pattern on a recording medium.

Nakamura et al. is cited, because Nakamura et al. teach a method of recording erase pattern having multi-pulse.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lixi Chow whose telephone number is 571-272-7571. The examiner can normally be reached on Mon-Fri, 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

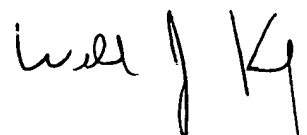
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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LC 8/5/05


WILLIAM KLIMOWICZ
PRIMARY EXAMINER